

2016-07-15

Data Literacy and Voting

Stuit, Martha

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Data Literacy and Voting

Martha Stuit
University of Michigan

Friday, July 15, 2016,
1:15 p.m. - 2:15 p.m.



Image: "Voting United States.jpg" by Tom Arthur, on [Wikimedia Commons](https://commons.wikimedia.org/wiki/File:Voting_United_States.jpg). CC BY-SA 2.0.



July 14 - 15, 2016

Free registration - Free SCECHs - Register at <http://data literacy.si.umich.edu/conference>

A project of the University of Michigan School of Information, the U-M Library, and U-M School of Education. This project was made possible in part by the Institute of Museum and Library Services RE-00-15-0113-15.

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about the teaching of writing in virtual spaces.
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Blackboard Collaborate

Tools Window Help

4TDL ALA PRACTICE

AUDIO & VIDEO

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Public Page 1/1 Follow

PARTICIPANTS

MAC Moderator Moderator

MAIN ROOM (2)

MAC Moderator Moderator (You)

Kristin test

CHAT

- Kristin test joined the Main Room. (7:14 PM) -

Room Moderators

raise hand

polling

magic wand

chat

A screenshot of the Blackboard Collaborate web interface. The interface is divided into several sections: a top navigation bar with 'Tools', 'Window', and 'Help'; a main content area; a left sidebar with 'AUDIO & VIDEO', 'PARTICIPANTS', and 'CHAT'; and a bottom status bar. The 'PARTICIPANTS' section shows a list of users, including 'MAC Moderator' and 'Kristin test'. The 'CHAT' section shows a message from 'Kristin test'. Red arrows and circles are used to highlight specific features: 'raise hand' and 'polling' are circled in the 'PARTICIPANTS' section; 'magic wand' is circled in the 'AUDIO & VIDEO' section; and 'chat' is circled in the 'CHAT' section.



Use
Magic
Wand
Tool



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Martha Stuit

Presenter

What Do You Teach?

**HS
Language
Arts**

**HS Social
Studies**

**HS
Science**

**HS Math
or CS**

**HS Other
Subjects**

**HS
Librarian**

**Admini-
strator**

**Higher Ed
Faculty**

**Higher Ed
Librarian**

Other



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Agenda

1. News media
2. 2016 Presidential election overview
3. Rules of thumb for data literacy and voting
4. Sources of election information
5. Questions/discussion

News Media



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Americans overwhelmingly think that news media are one-sided

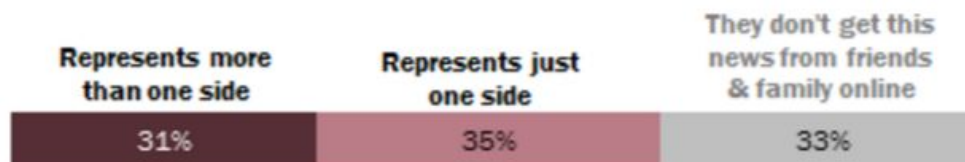
Americans overwhelmingly think that news media are one-sided

% of U.S. adults who think that news organizations ... when covering political and social issues



But more are divided in whether they think this about news they get online from friends and family

% of online news consumers who think that the news their friends and family post or send online about political and social issues ...



Source: Survey conducted Jan. 12-Feb. 8, 2016.

"The Modern News Consumer"

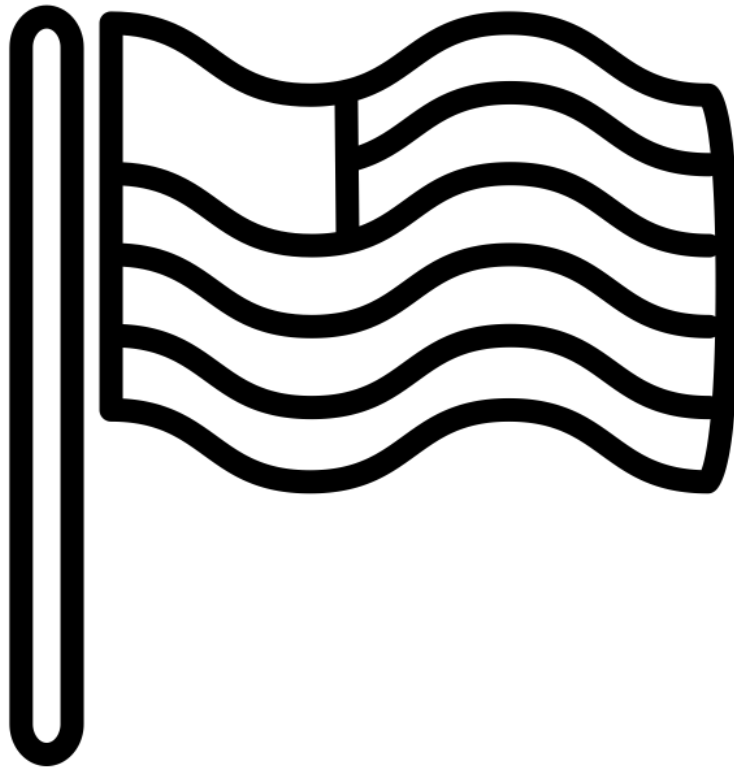
PEW RESEARCH CENTER



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**See end of presentation for a list of resources used in this webinar.*

2016 Presidential Election



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2016 Presidential Election

- **February 1 to June 14:** Primaries
- **May 3:** Donald Trump became the presumptive Republican nominee
- **June 6:** Hillary Clinton became the presumptive Democratic nominee
 - Bernie Sanders is still active
- National conventions to determine the parties' nominees for president and vice president:
 - **July 18-21:** Republican National Convention
 - **July 25-28:** Democratic National Convention
- **November 8:** Election

Image: "US Flag Backlit.jpg" by Jnn13, on [Wikimedia Commons](#). CC BY-SA 2.0.



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Rules of Thumb for Data Literacy and Voting



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1. Know how polling works.

What is polling? How do they get those numbers?

As Charles Wheelan writes:

“...one might reasonably ask, How do we know all this? How can we draw such sweeping conclusions about the attitudes of hundreds of millions of adults? And how do we know whether those sweeping conclusions are accurate?” (170)



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Definition, from Wheelan:

“A poll (or survey) is an inference about the opinions of some population that is based on the views expressed by some sample drawn from that population.” (170)

***A “poll” is also the place where voters cast their votes.**



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Ways that polls trip us up:

- Polls are formed from **samples** of a **population**.
 - *Is the sample representative of the population?*
- Types of bias:
 - **Nonresponse bias**: who chose *not* to participate in the poll
 - **Selection bias**: who participated in the poll
- Question **wording** and **order**
 - *How might respondents respond?*



There are different types of polls:

- **Interactive polls:** an interviewer speaks with a respondent.
- **Automated polls:** a robo-call to respondents. Respondents use their phone keypad to respond.
- **Online polls:** polls completed online, which are questionable because not all people have Internet access, and they have issues with bias.

Indications of a good poll:

- **Transparency** - Participates with these organizations:

American Association for Public Opinion Research (AAPOR)
National Council on Public Polls (NCPP) <ul style="list-style-type: none">■ Includes article called “20 Questions A Journalist Should Ask About Polls Results”
Roper Center’s Polling Data

- **Tip*: Check out FiveThirtyEight’s Pollster Ratings! (You can delve *even* deeper by clicking on “How this works.”)

- **Methodology**

- Representative of population
- Type of poll



Example: Franklin and Marshall College Poll

March 2016 Franklin & Marshall College Poll

SUMMARY OF FINDINGS

Prepared by:
Center for Opinion Research
Floyd Institute for Public Policy
Franklin & Marshall College

RACE. Which of the following categories best describes your racial background?

**93% White
8% Non-white**

March 24, 2016



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Example: Pew Research Center report

- **Sample:** 2,245 adults, who are 18 and older, in the United States.
- **Methodology:** telephone interviews
 - 559 contacted by landlines
 - 1,686 contacted by cell phones

High levels of interest in the election

% of registered voters who say ...

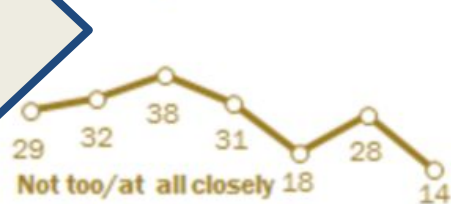
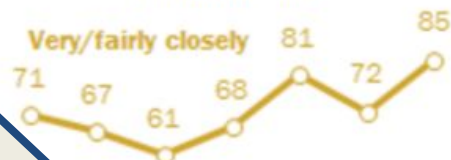
When it comes to making progress on important issues facing the country...

It really matters who wins election



Things will be pretty much the same no matter who wins

Follow news about presidential candidates...*



Notes: Based on registered voters. Q23, THOUGHT, CAMPNII & Q5. Other/Don't know responses not shown.

* Results from June surveys except for 1992 & 1996 interest in campaign news, from July. Source: Survey conducted June 15-26, 2016.

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2. Apply statistical skills.

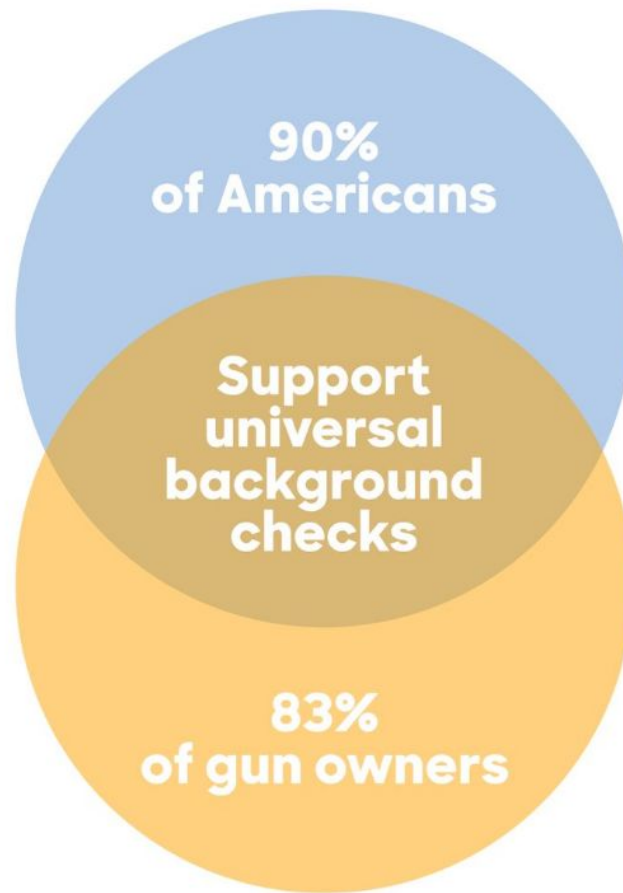
- *Questions to ask:*
 - What is the **sample**, and is it **representative**?
 - What kind of **average** is it?
 - Mean, median, or mode
 - What is the **inverse** of the statistic?
 - What is the **margin of error**?
 - + or - percentage points



3. Apply data visualization skills.

- **Type of chart or graph**
 - Is it the right one?
 - Is it used correctly?
 - Is it misleading?
- **Colors**
 - What are the colors supposed to indicate?
 - Do they make the data seem dramatic?

Example:
Venn
diagram
by
Hillary
Clinton



Hillary Clinton ✓
@HillaryClinton

 Follow

Dear Congress,

Let's get this done.

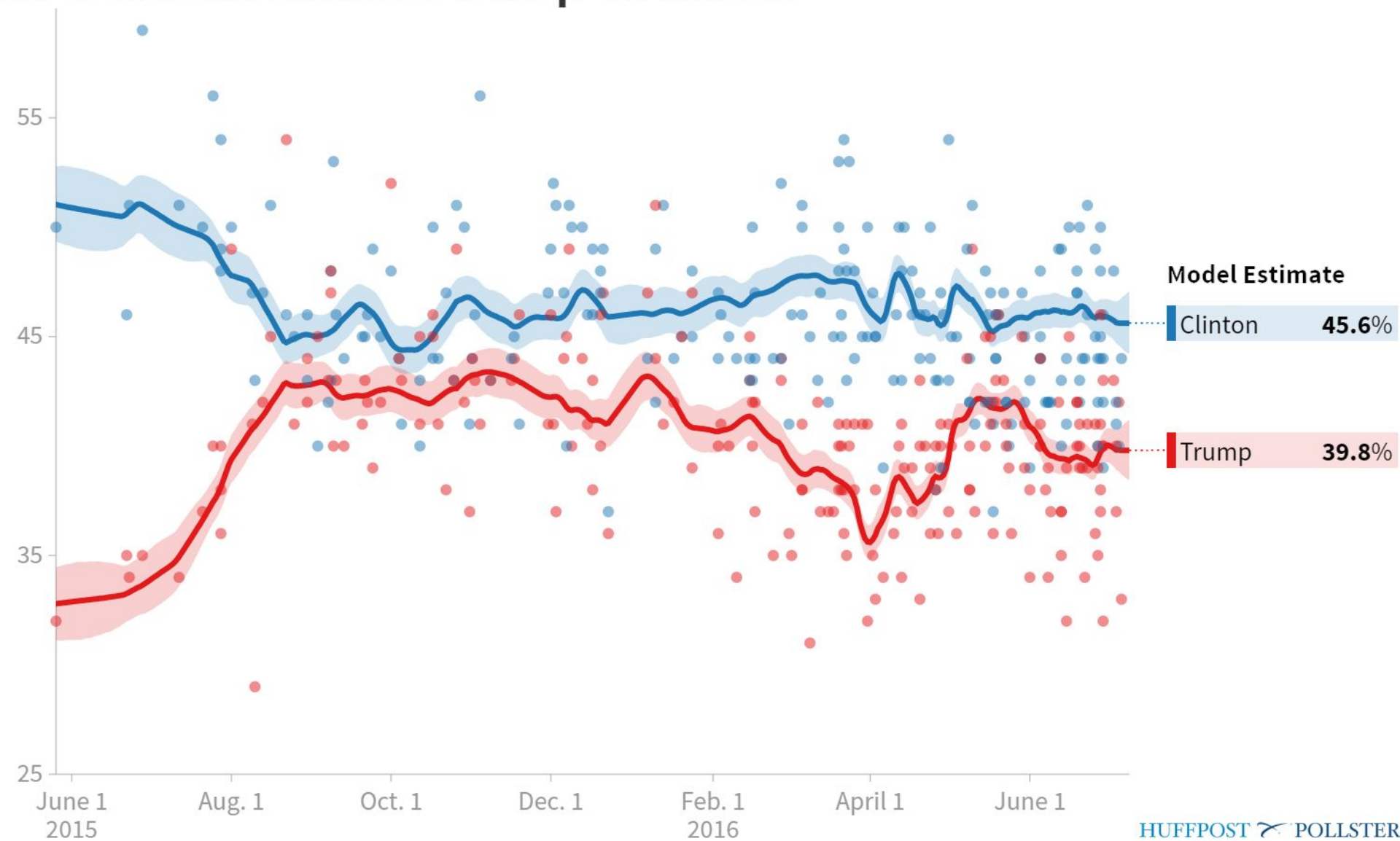
Thanks,

The vast majority of Americans

12:21 PM - 20 May 2016

Example: Revised visualization

2016 General Election: Trump vs. Clinton



Each dot is an opinion poll, and the lines indicate trends generated by HuffPost Pollster's poll-tracking model. This chart is as of July 8, 2016.

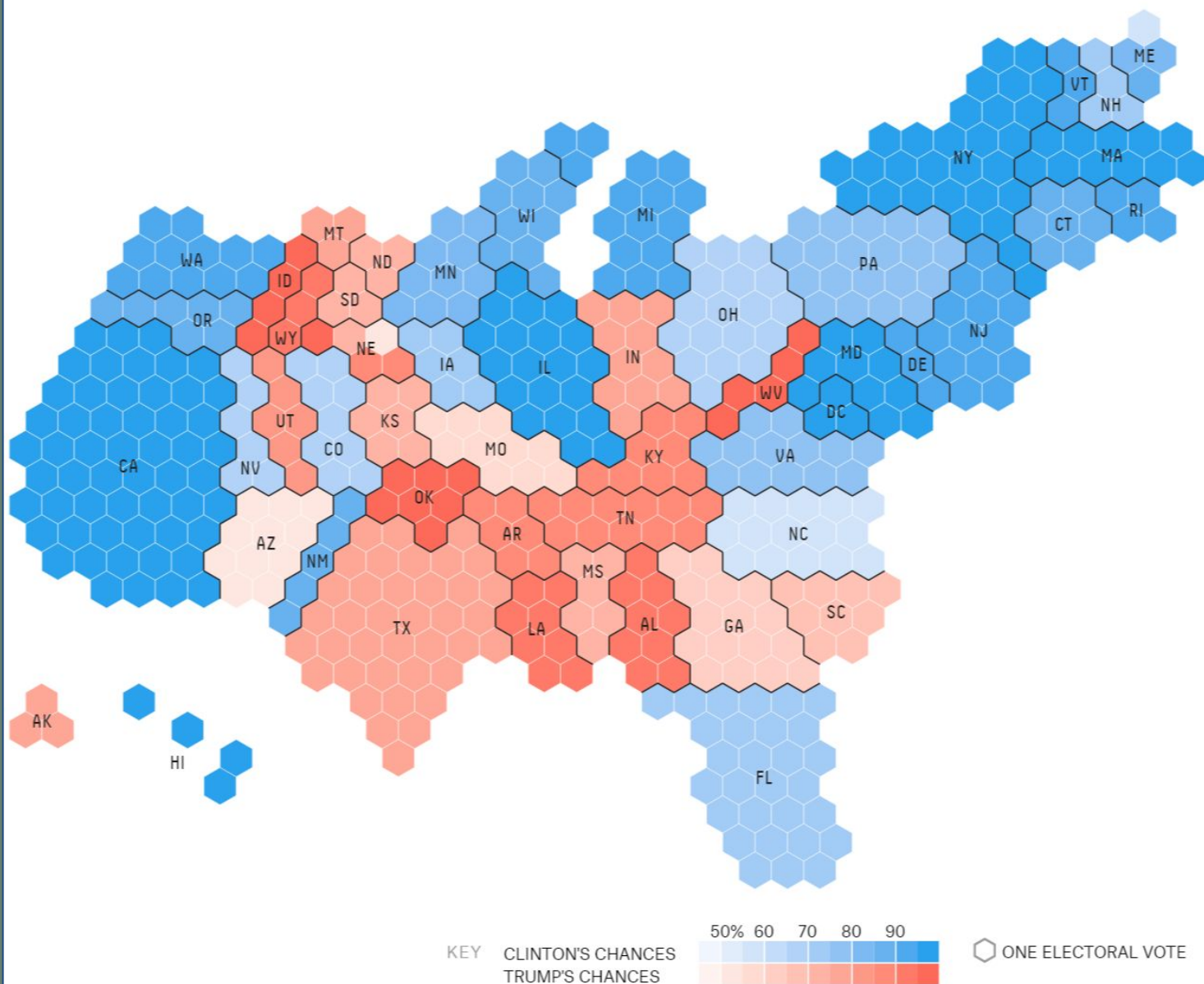


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Example: FiveThirtyEight Electoral College Map

It's all about the 538 Electoral College votes

Here's a map of the country, with each state sized by its number of electoral votes and shaded by the leading candidate's chance of winning it.



4. Look at multiple sources.

- We often talk about **unbiased sources** or reporting, which do not exist. Good methodology and bad methodology do exist.
- To combat that, look for **multiple sources** to understand an issue. Also, apply the **statistics** and **data visualization skills** that you have learned from other webinars.
- Making good, informed decisions about the sources of information that you read and cite is key.
- How?
 - Look for counterarguments on the issue.
 - Peruse a variety of sources, including ones that lean left and ones that lean right.



Sources for Election Information



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LAW ENFORCEMENT

The Dallas Shooting Was Among The Deadliest For Police In U.S. History

By Carl Bialik, Ritchie King and Andrew Flowers

THE LATEST

JUL 9

Serena Williams Ties Graf's Majors Record Thanks To A Remarkable Run In Her 30s

JUL 8

New Podcast Jobs At ESPN: "30 for 30" And FiveThirtyEight

JUL 8

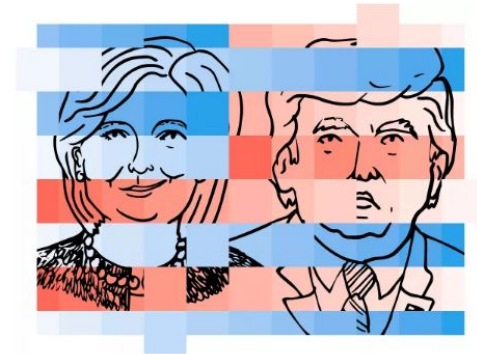
The Dallas Shooting Was Among The Deadliest For Police In U.S. History

JUL 8

What Our NBA Projections Got Right (And Wrong) Last Season

INTERACTIVES





2016 General Election Forecast



MLB Predictions

UPDATED 8 HOURS AGO

Upcoming games

	Blue Jays def. Tigers	61%
	Mets def. Nationals	53%
	Indians def. Yankees	58%
	Cubs def. Pirates	53%

Flowing Data



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History lesson on data visualization

Clive Thompson for Smithsonian Magazine gives a quick history lesson on infographics. [D]ata visualization was rare because data was rare. ...



Making the Seinfeld theme song with Bieber, Diplo, and Skrillex

Last year the New York Times interviewed Justin Bieber, Diplo, and Skrillex about how they put together their song Where ...



Moving drought boundaries

Drought continues to trudge along. My grass is just about dead, save a few hearty patches clinging on to the ...

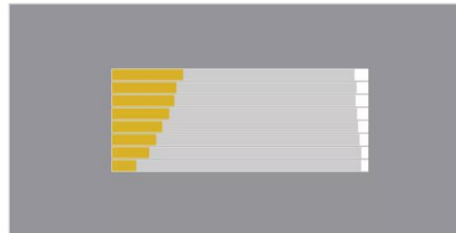


Features [SEE ALL →](#)



Shifting Incomes for American Jobs

For various occupations, the difference between the person who makes the most and the one who makes the least can be significant.



Who Still Smokes?

Two decades out from the first statewide ban on smoking in enclosed workplaces, here's who still smokes.

Go beyond analytics.

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School of Professional Studies

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<http://flowingdata.com/>

League of Women Voters



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League of Women Voters of the United States[®]
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FOR ALL**

June 16-19, 2016
WASHINGTON, DC

1 2 3 4 5

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Last
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CAPTCHA

This question is for testing whether you are a human visitor and to prevent automated spam submissions.

Math question * $2 + 11 =$

Solve this simple math problem and enter the result. E.g. for 1+3, enter 4.

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LWV's VOTE411



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Enter your address for personalized voting information.

Street *

City *

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Enter

Enter your address to find your polling place, build your ballot with our [online voters' guide](#) and much more! With our voters' guide you can see the races on your ballot, compare candidates' positions side-by-side, and print out a "ballot" indicating your preferences as a reminder and take it with you to the polls on Election Day. [Check out](#) our resources for military and overseas voters!



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SEARCH BY STATE & TOPIC

Find voting information by state or by topic.

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<http://www.vote411.org/>

The New York Times: The Upshot

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The New York Times

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TheUpshot

ECONOMIC VIEW

America Can Fix Its Student Loan Crisis. Just Ask Australia.

Other countries offer plans that give students more time to repay loans or that make provisions for fluctuating earnings, so fewer borrowers default.

12h ago • By SUSAN DYNARSKI



JOSEPH LANEY

<http://www.nytimes.com/section/upshot>



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DAILY COMMENT

OBAMA AND TRUMP AFTER DALLAS

BY DAVID REMNICK

A President can be judged on his ability to explain, to console, and to frame tragedy in the realm of both politics and emotion.

Pew Research Center

PewResearchCenter



U.S. POLITICS

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HISPANICS

GLOBAL

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FACT TANK

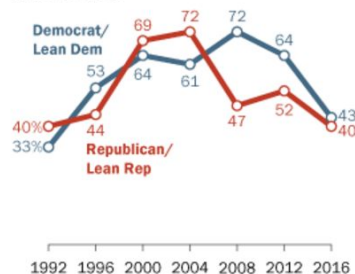
EXPERTS

U.S. POLITICS | JUL 7, 2016

2016 Campaign: Strong Interest, Widespread Dissatisfaction

Overall satisfaction with the choice of candidates is at its lowest point in two decades. Fewer than half of registered voters in both parties say they are satisfied with their choices for president.

% of registered voters who are very/fairly satisfied with the presidential candidates ...



2016 Campaign: Strong Interest, Widespread Dissatisfaction

The Modern News Consumer

Obama and the U.S. Seen Favorably in Europe and Asia

FACTTANK

NEWS IN THE NUMBERS

JUL 8, 2016

How Americans view the Black Lives Matter movement

JUL 8, 2016

Trump faces challenge in getting a united GOP behind him

JUL 7, 2016

6 facts about religious hostilities in the Middle East and North Africa

JUL 7, 2016

Key findings on the traits and habits of the modern news consumer

JUL 7, 2016

You can look many of these sources up on FiveThirtyEight's Pollster ratings (*next slide*). For instance, Pew gets a B+.

<http://www.pewresearch.org/>



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Aggregators of Polls: FiveThirtyEight

UPDATED 11:00 AM EDT | JUN 29, 2016

FiveThirtyEight's Pollster Ratings

By [Nate Silver](#)

FiveThirtyEight's pollster ratings are calculated by analyzing the historical accuracy and the methodology of each firm's polls. Accuracy scores account for the type of election, a poll's sample size, the performance of other polls surveying the same race and other factors. We also calculate measures of statistical bias in the polls.

See more: [The State Of The Polls, 2016](#) | [How this works](#) | [Download the data](#)




<http://projects.fivethirtyeight.com/pollster-ratings/>

RATINGS

DEFINITIONS

POLLSTER	LIVE CALLER WITH CELLPHONES	INTERNET	NCPP/ AAPOR/ ROPER	POLLS ANALYZED	SIMPLE AVERAGE ERROR	RACES CALLED CORRECTLY	ADVANCED +/-	PREDICTIVE +/-	538 GRADE	BANNED BY 538	MEAN-REVERTED BIAS
SurveyUSA			●	763	4.6	90%	-1.0	-0.8	A		D+0.1
YouGov		●		707	6.7	93%	-0.3	+0.1	B		D+1.6
Rasmussen Reports/ Pulse Opinion Research				657	5.3	79%	+0.4	+0.7	C+		R+2.0
Zogby Interactive/JZ Analytics		●		465	5.6	78%	+0.8	+1.2	C-		R+0.8
Mason-Dixon Polling & Research, Inc.	●			415	5.2	86%	-0.4	-0.2	B+		R+1.0
Public Policy Polling				383	4.9	82%	-0.5	-0.1	B+		R+0.2
Research 2000				279	5.5	88%	+0.2	+0.6	F	×	D+1.4


Aggregators of Polls: HuffPost Pollster


HUFFPOST  **POLLSTER** 

Navigate the Technology-Centric Education Ecosystem.

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Lenovo Education

 Windows 10 Pro

AdChoices 

HuffPost Pollster tracks thousands of public polls to give you the latest data on elections, political opinions and more. [Read our FAQ.](#)

SEARCH ALL POLL CHARTS



e.g. "New York," "Obama" or "health care"

OR EXPLORE A SET OF CHARTS

FEATURED CHARTS


2016 GENERAL ELECTION

2016 SENATE RACES

PAST PRIMARY RACES

POLITICAL ENVIRONMENT

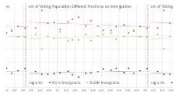
FAVORABILITY RATINGS



HuffPollster: A once daily email update on the latest polls and analysis of public opinion


SIGN UP

Latest Polling Stories



Guns And Immigration: Critical Wedge Issues Of 2016
July 8, 2016

Throughout the campaign, since January, we have been and will be polling Americans on their policy preferences. We want to know: Which candidate's platform...

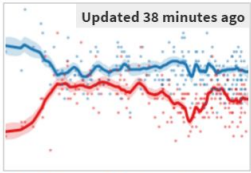


THE WILDCATTERS: #Brexit, #Textit, and U.S. Public Opinion Toward State Secession
July 4, 2016

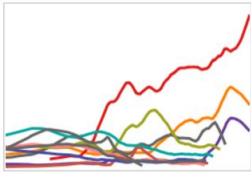
When Great Britain surprisingly voted to leave the European Union, the eyes of the nation quickly turned to Texas. With its unique history as an ...

Featured Charts

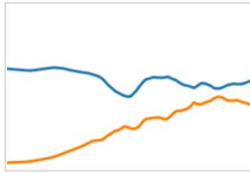
Updated 38 minutes ago



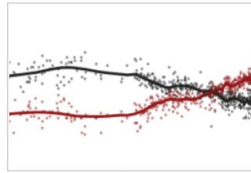
2016 General Election: Trump vs. Clinton
■ 46% Hillary Clinton
■ 40% Donald Trump



2016 National Republican Primary
■ 56% Donald Trump
■ 23% Ted Cruz



2016 National Democratic Primary
■ 54% Hillary Clinton
■ 39% Bernie Sanders



Hillary Clinton Favorable Rating
■ 41% Favorable
■ 56% Unfavorable

<http://elections.huffingtonpost.com/pollster>

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Aggregators of Polls: RealClearPolitics

RealClear Politics

Polls

Election 2016

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2016 Presidential Polls

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Saturday, July 9

Race/Topic (Click to Sort)	Poll	Results	Spread
President Obama Job Approval	Gallup	Approve 51, Disapprove 45	Approve +6

Friday, July 8

Race/Topic (Click to Sort)	Poll	Results	Spread
General Election: Trump vs. Clinton vs. Johnson	Rasmussen Reports	Clinton 38, Trump 40, Johnson 9	Trump +2
California Senate - Harris vs. Sanchez	Field	Harris 39, Sanchez 24	Harris +15
President Obama Job Approval	Rasmussen Reports	Approve 49, Disapprove 50	Disapprove +1

Recommended

Politics



- Trump's Capitol Hill Visit Fails to Bring Party Unity
- Where Clinton, Trump Stand on Energy, Climate Change
- Giuliani: Clinton Broke the Law; Gross Negligence Means Extreme Carelessness
- Trump the Outsider Looks for Insider Running Mate
- President Obama Slows Troop Withdrawal From Afghanistan

<http://www.realclearpolitics.com/>



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Others...

**What are your
favorites?**

Resources

American Association for Public Opinion Research. "Transparency Initiative." American Association for Public Opinion Research. Accessed July 9, 2016.
<http://www.aapor.org/transparency.aspx>.

Andrews, Wilson and Josh Katz. "2016 Election Polls." *The New York Times Election 2016*. Last modified July 8, 2016.
<http://www.nytimes.com/interactive/2016/us/elections/polls.html#polling-notes>.

Center for Opinion Research, Floyd Institute for Public Policy, Franklin & Marshall College. "March 2016 Franklin & Marshall College Poll." Franklin & Marshall. Last modified March 24, 2015. Accessed July 9, 2016. <http://www.fandm.edu/uploads/files/295186459482343904-f-m-poll-release-march-2016-1.pdf>.

Cohn, Nate. "How Polling Can Go Wrong." *The New York Times The Upshot* (blog). Entry posted June 30, 2016. Accessed July 8, 2016.
<http://www.nytimes.com/2016/07/01/upshot/how-polling-can-go-wrong.html>.

FiveThirtyEight. "FiveThirtyEight's Pollster Ratings." *FiveThirtyEight*. Last modified June 29, 2016. Accessed July 9, 2016.
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Recap:

1. Know how **polling** works.
2. Apply **statistical skills**.
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4. Look at **multiple sources**.

Questions?

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Evaluation:

<http://bit.ly/4TDL-voting>



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